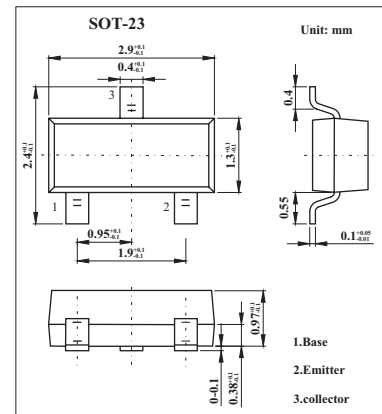


PNP Silicon AF an Switching Transistors

BCX42

■ Features

- For general AF applications
- High breakdown voltage
- Low collector-emitter saturation voltage

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	125	V
Collector-emitter voltage	V_{CE0}	125	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_C	800	mA
Peak collector current	I_{CM}	1	A
Base current	I_B	100	mA
Peak base current	I_{BM}	200	mA
Total power dissipation	P_{tot}	330	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction - soldering point	R_{thJS}	≤ 215	K/W

BCX42■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	125			V
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\text{ }\mu\text{A}, I_B = 0$	125			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\text{ }\mu\text{A}, I_C = 0$	5			V
Collector cutoff current	I_{CBO}	$V_{CB} = 100\text{ V}, I_E = 0$			100	nA
		$V_{CB} = 100\text{ V}, I_E = 0, T_A = 150^\circ\text{C}$			20	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 4\text{ V}, I_C = 0$			100	nA
Collector cutoff current	I_{CEO}	$V_{CE} = 100\text{ V}, T_A = 85^\circ\text{C}$			10	μA
		$V_{CE} = 100\text{ V}, T_A = 125^\circ\text{C}$			75	μA
DC current gain *	h_{FE}	$I_C = 100\text{ }\mu\text{A}, V_{CE} = 1\text{ V}$	25			
		$I_C = 100\text{ mA}, V_{CE} = 1\text{ V}$	63			
		$I_C = 200\text{ mA}, V_{CE} = 1\text{ V}$	40			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 300\text{ mA}, I_B = 30\text{ mA}$			0.9	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 300\text{ mA}, I_B = 30\text{ mA}$			1.4	V
Transition frequency	f_T	$I_C = 20\text{ mA}, V_{CE} = 5\text{ V}, f = 20\text{ MHz}$		150		MHz
Collector-base capacitance	C_{cb}	$V_{CB} = 10\text{ V}, f = 1\text{ MHz}$		12		pF

* Pulse test: $t \leq 300\mu\text{s}$, $D = 2\%$.

■ Marking

Marking	DKs
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